

Trek Model 2100HF

High-Frequency, High-Speed Amplifier



The Trek Model 2100 HF is a high-frequency, high-speed, wide bandwidth amplifier for high power applications. It incorporates an all-solid-state design for highly reliable low-noise operation, thus achieving accurate output response and high slew rates, even in highly capacitive loads. Full power frequency response of the amplifier is essentially flat up to 2 MHz. No overshoot or instability of the waveform occurs due to the amplifier's unique dual feedback feature.

Key Specifications

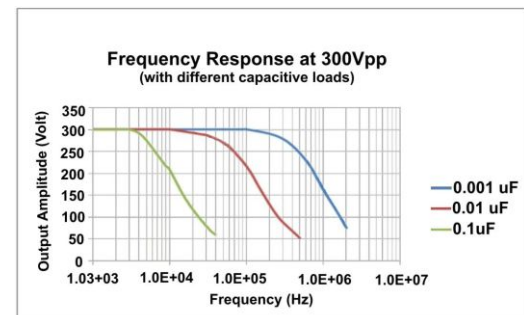
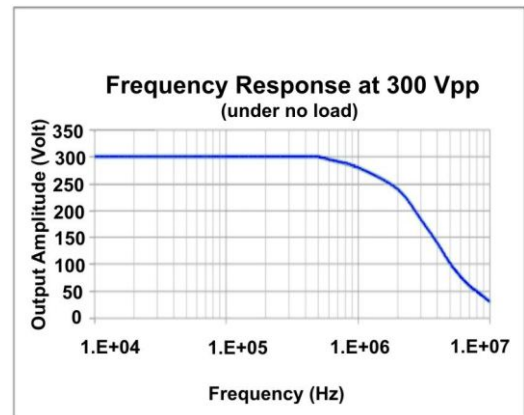
- Output Voltage Range: 0 to ± 150 V DC or peak AC
- Output Current Range: 0 to ± 300 mA DC
- Slew Rate: 2 kV/ μ s, typical
- Large Signal Bandwidth (-3 dB): DC to greater than 2.6 MHz
- Small Signal Bandwidth(-3 dB): DC to greater than 3 MHz
- DC Voltage Gain: 50 V/V

Typical Applications Include

- Dielectric material characterization
- Electro-optic modulation
- Ion beam control
- MEMS
- Piezoelectric driving and control
- Ultrasonics

Features and Benefits

- Incorporates all-solid state design for highly reliable low-noise operation
- Achieves accurate output rates and high slew rates even in highly capacitive loads
- Full power frequency response is essentially flat up to 2 MHz
- Dual feed-back feature ensures "no overshoot" or instability of waveform
- RoHS compliant
- NIST-traceable Certificate of Compliance provided with each unit shipped



Model 2100HF Specifications

Performance

Output Voltage Range	0 to ± 150 V DC or peak AC
Output Current Range	0 to ± 300 mA DC
Input Voltage Range	0 to ± 3 V DC or peak AC
Input Impedance	50 Ω , nominal
DC Voltage Gain	50 V/V
Offset Voltage	Less than ± 100 mV
Output Noise	Less than 50 mV p-p
Slew Rate (10-90%)	Greater than 2000 V/ μ s
Large Signal Bandwidth (-3 dB)	DC to greater than 2.6 MHz
Small Signal Bandwidth (-3dB)	DC to greater than 3 MHz
Stability	
Delay Time	Less than 6 mV/ minute, noncumulative
Drift with Temp	Less than 150 ns (input to output)

Mechanical

Dimensions	141 mm H x 213 mm W 336 mm D (5.57" H x 8.38" W x 13.22" D)
Weight	6.8 kg (15 lb)
HV Connector	BNC Connector

Electrical

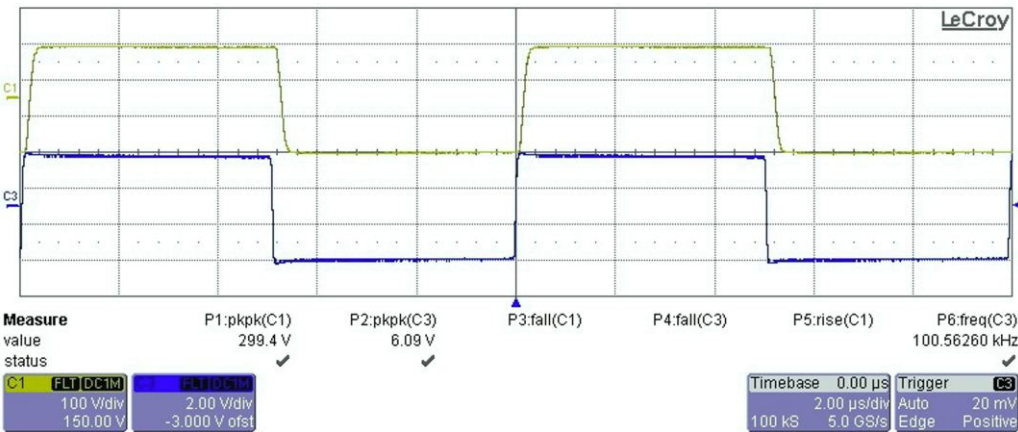
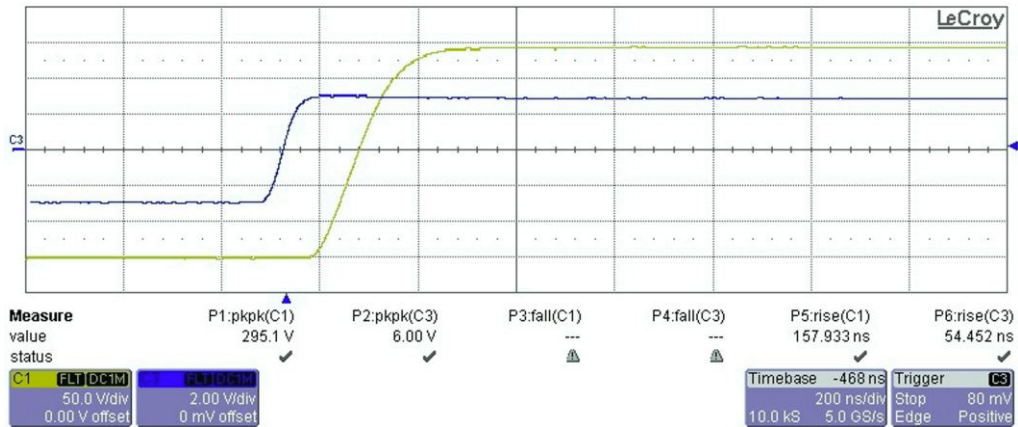
Input Power	90 to 127 V AC, at 48 to 63 Hz 180 to 250 V AC, at 48 to 63 Hz
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Supplied Accessories

Operators' Manual	PN: 23435
HV Output Cable	PN: 47508 (3m)
Line Cord, Spare Fuses	Determined by the geographical destination of the unit

Optional Accessories

Optional Accessories	None
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